

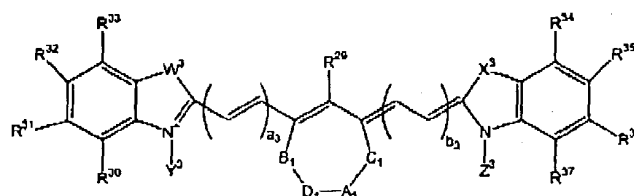
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-3. (CANCELED)

4. (CURRENTLY AMENDED) A method for performing a diagnostic or therapeutic imaging procedure comprising

administering to an individual an effective amount of the compound of formula



wherein W^3 and X^3 are independently selected from the group consisting of $-CR^1R^2$, $-O-$, $-NR^3$, $-S-$, and $-Se$; Y^3 is selected from the group consisting of $-(CH_2)_a-CONH-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$, $-(CH_2)_a-NHCO-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$, $-(CH_2)_a-N(R^3)-(CH_2)_b-CONH-Bm$, $(CH_2)_a-N(R^3)-(CH_2)_b-NHCO-Bm$, $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$, $-(CH_2)_a-N(R^3)-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-CONH-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-(CH_2)_a-NHCO-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_a-CONH-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-N(R^3)-CH_2-(CH_2OCH_2)_a-NHCO-Bm$, $-(CH_2)_a-NR^3R^4$, and

$-\text{CH}_2(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2\text{NR}^3\text{R}^4$; Z^3 is selected from the group consisting of $-(\text{CH}_2)_a-$
 CONH-Dm , $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{CONH-Dm}$, $-(\text{CH}_2)_a-\text{NHCO-Dm}$, $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-$
 $\text{CH}_2-\text{NHCO-Dm}$, $-(\text{CH}_2)_a-\text{N}(\text{R}^3)-(\text{CH}_2)_b-\text{CONH-Dm}$, $(\text{CH}_2)_a-\text{N}(\text{R}^3)-(\text{CH}_2)_c-\text{NHCO-Dm}$,
 $-(\text{CH}_2)_a-\text{N}(\text{R}^3)-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{CONH-Dm}$, $-(\text{CH}_2)_a-\text{N}(\text{R}^3)-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-$
 NHCO-Dm , $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{N}(\text{R}^3)-(\text{CH}_2)_a-\text{CONH-Dm}$, $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-$
 $\text{N}(\text{R}^3)-(\text{CH}_2)_a-\text{NHCO-Dm}$, $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{N}(\text{R}^3)-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_d-\text{CONH-Dm}$,
 $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{N}(\text{R}^3)-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_d-\text{NHCO-Dm}$, $-(\text{CH}_2)_a-\text{NR}^3\text{R}^4$, and
 $-\text{CH}_2(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2\text{NR}^3\text{R}^4$; A_1 is a single or a double bond; B_1 , C_1 , and D_1 are
independently selected from the group consisting of $-\text{O}-$, $-\text{S}-$, $-\text{Se}-$, $-\text{P}-$, $-\text{CR}^1\text{R}^2$, $-\text{CR}^1$,
alkyl, NR^3 , and $-\text{C}=\text{O}$; A_1 , B_1 , C_1 , and D_1 may together form a 6- to 12-membered
carbocyclic ring or a 6- to 12-membered heterocyclic ring optionally containing one
or more oxygen, nitrogen, or sulfur atom; a_3 and b_3 are independently from 0 to 5;
 R^1 to R^4 , and R^{29} to R^{37} are independently selected from the group consisting of
hydrogen, C_1 - C_{10} alkyl, C_5 - C_{20} aryl, C_1 - C_{10} alkoxy, C_1 - C_{10} polyalkoxyalkyl, C_1 - C_{20}
polyhydroxyalkyl, C_5 - C_{20} polyhydroxyaryl, C_1 - C_{10} aminoalkyl, cyano, nitro, halogen,
saccharide, peptide, $-\text{CH}_2(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{OH}$, $-(\text{CH}_2)_a-\text{CO}_2\text{H}$, $-(\text{CH}_2)_a-\text{CONH-Bm}$,
 $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{CONH-Bm}$, $-(\text{CH}_2)_a-\text{NHCO-Bm}$, $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CH}_2-\text{NHCO-}$
 Bm , $-(\text{CH}_2)_a-\text{OH}$ and $-\text{CH}_2-(\text{CH}_2\text{OCH}_2)_b-\text{CO}_2\text{H}$; Bm and Dm are independently selected
from the group consisting of a bioactive peptide, a protein, a cell, an antibody, an
antibody fragment, a saccharide, a glycopeptide, a peptidomimetic, a drug, a drug
mimic, a hormone, a metal chelating agent, a radioactive or nonradioactive metal
complex, and an echogenic agent; a and c are independently from 1 to 20; and b

and d are independently from 1 to 100, and a pharmaceutically acceptable carrier or excipient to form a composition,

activating the compound using light, and

performing the diagnostic procedure.

5. (ORIGINAL) The method of claim 4 comprising administering to an individual an effective amount of the compound wherein W^3 and X^3 are independently selected from the group consisting of $-C(CH_3)_2$, $-C((CH_2)_aOH)CH_3$, $-C((CH_2)_aOH)_2$, $-C((CH_2)_aCO_2H)CH_3$, $-C((CH_2)_aCO_2H)_2$, $-C((CH_2)_aNH_2)CH_3$, $C((CH_2)_aNH_2)_2$, $C((CH_2)_aNR^3R^4)_2$, $-NR^3$, and $-S-$; Y^3 is selected from the group consisting of $-(CH_2)_a-CONH-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$, $-(CH_2)_a-NHCO-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$, $-(CH_2)_a-NR^3R^4$, and $-CH_2(CH_2OCH_2)_b-CH_2NR^3R^4$; Z^3 is selected from the group consisting of $-(CH_2)_a-CONH-Dm$, $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Dm$, $-(CH_2)_a-NHCO-Dm$, $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Dm$, $-(CH_2)_a-NR^3R^4$, and $-CH_2(CH_2OCH_2)_b-CH_2NR^3R^4$; A_1 is a single or a double bond; B_1 , C_1 , and D_1 are independently selected from the group consisting of $-O-$, $-S-$, NR^3 , $(CH_2)_a-CR^1R^2$, and $-CR^1$; A_1 , B_1 , C_1 , and D_1 may together form a 6- to 10-membered carbocyclic ring or a 6- to 10-membered heterocyclic ring optionally containing one or more oxygen, nitrogen, or sulfur atom; a_3 and b_3 independently vary from 0 to 3; R^1 to R^4 , and R^{29} to R^{37} are independently selected from the group consisting of hydrogen, C_1 - C_{10} alkyl, C_5 - C_{12} aryl, C_1 - C_{10} alkoxy, C_1 - C_{10} polyhydroxyalkyl, C_5 - C_{12} polyhydroxyaryl, C_1 - C_{10} aminoalkyl, mono- or oligosaccharide, peptide with 2 to 30 amino acid units, $-CH_2(CH_2OCH_2)_b-CH_2-OH$,

Page 4 of 9

$-(CH_2)_a-CO_2H$, $-(CH_2)_a-CONH-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-CONH-Bm$, $-(CH_2)_a-NHCO-Bm$, $-CH_2-(CH_2OCH_2)_b-CH_2-NHCO-Bm$, $-(CH_2)_a-OH$ and $-CH_2-(CH_2OCH_2)_b-CO_2H$; Bm and Dm are independently selected from the group consisting of a bioactive peptide containing 2 to 30 amino acid units, an antibody, a mono- or oligosaccharide, a glycopeptide, a metal chelating agent, a radioactive or nonradioactive metal complex, and an echogenic agent; a and c are independently from 1 to 10; and b and d are independently from 1 to 30.

6. (ORIGINAL) The method of claim 5 comprising administering to an individual an effective amount of the compound wherein each of W^3 and X^3 is $C((CH_2)OH)_2$; Y^3 is $-(CH_2)_2-CONH-Bm$; Z^3 is $-(CH_2)_2-CONH-Dm$; A_1 is a single bond; A_1 , B_1 , C_1 , and D_1 together form a 6-membered carbocyclic ring; each a_3 and b_3 is 1; R^{29} is galactose; each R^{30} to R^{37} is hydrogen; Bm is Octreotate; and Dm is bombesin (7-14).

7. (ORIGINAL) The method of claim 4 wherein said procedure uses light of wavelength in the region of 350-1300 nm.

8. (ORIGINAL) The method of claim 4 wherein the diagnostic procedure is optical tomography.

9. (ORIGINAL) The method of claim 4 wherein the diagnostic procedure is fluorescence endoscopy.

10. (ORIGINAL) The method of claim 4 further comprising monitoring a blood clearance profile of said compound by a method selected from the group consisting of fluorescence, absorbance, and light scattering, wherein light of wavelength in the region of 350-1300 nm is used.

11. (ORIGINAL) The method of claim 4 wherein said procedure further comprises imaging and therapy, wherein said imaging and therapy is selected from the group consisting of absorption, light scattering, photoacoustic and sonofluorescence technique.

12. (ORIGINAL) The method of claim 4 wherein said procedure is capable of diagnosing atherosclerotic plaques and blood clots.

13-15. (CANCELED)

16. (PREVIOUSLY PRESENTED) The method of claim 4 further comprising adding a biocompatible organic solvent to the compound at a concentration of one to fifty percent to the composition to inhibit *in vivo* or *in vitro* fluorescence quenching.

17. (ORIGINAL) The method of claim 16 wherein said compound is dissolved in a medium comprising one to fifty percent dimethyl sulfoxide.

JUL. 1. 2004 3:34PM

513 241 6234

NO. 9165 P. 9

18-20. (CANCELED)

Page 7 of 9